301 Console

Operations Manual



Manual

Part No. 24-004-0815

Welcome

Thank you for buying Strand Lighting control equipment. We hope that you will find that your lighting needs are met by your new system and that you will enjoy exploring the new facilities that your new system offers. You are provided with essential information to help you install and operate your system. Please look through all the documents and keep them safely for future use. If you have any difficulties, please do not hesitate to contact Strand Lighting or any authorized Strand service center for advice.

This equipment is designed to operate from the mains electrical supply and contains voltages, which, if touched, may cause death or injury. It should only be operated in accordance with the instructions provided and for the purpose of a lighting control system.

Do not open the console. There are no user serviceable parts inside.

Avoid spilling liquid on the equipment If this should happen, switch the equipment off immediately. To reduce the risk of fire or electric shock, do not expose the equipment to rain or moisture.

For indoor use only.

This equipment is designed and manufactured to comply with international safety standards 1EC950, UL1950, CS950 and is intended for use as part of a lighting control system. It must not be used for other purposes where there is a risk of safety to persons. The equipment contains power voltages, socket outlets shall be installed near to the equipment and be easily accessible.

- Working Voltage/Current 100-120 (2A) 220-240 (1A)
- Frequency 50/60 Hz
- Max Ambient Temp 35^0C
- Do not restrict ventilation

This manual describes the installation and operational procedures for Strand Lighting’s 301 Control Console.

Offices and Service Centers

Please confirm all country codes or other international access data.

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Table of Contents

Getting Started

Concept

The 301 series console provides 3 modes of operation. *Back up, Timed Events,* and *12 Channel Control* mode. Back up mode provides cue storage of 144 looks or cues to any DMX512 based lighting console for one universe of DMX512. Timed Event mode provides recording and playback for 12 timed events via the system clock. The events can be played back in any order. 12 Channel Control mode provides 1 scene 12 channel mode with patch for 512 dimmers. Two scene operation can be enables with the hold button. This console can be rack mounted

Ordering Information

Catalog #95713 – 301 Back up control system 120 volt
Catalog #91713 – 301 Back up control system 230/240 volt
Catalog #24-004-0815 – 301 console manual

Mechanical & Environmental Data

Weight: 4 kg
Finish: Blue powder coat epoxy paint
Construction: Rigid folded sheet steel
Temperature: 0 – 35°C
Humidity Range: 0-90% non-condensing
Ingress Protection: IP20

Standards Compliance

All units are CE marked. 120 volt consoles include UL, cUL power supplies.

Unpack the Console

Unpack the console from the packaging and check that the following components are contained within. If any parts are missing, or damaged, please contact the carrier and your nearest Strand Lighting office.

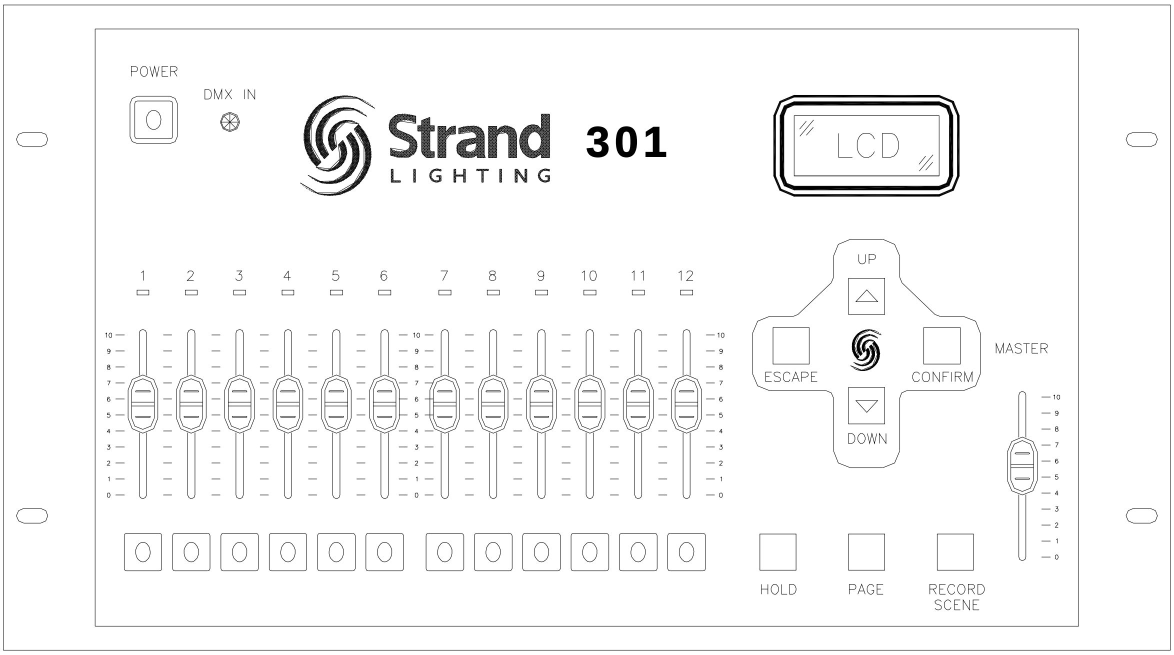
List of Parts for North America…

- (1) 301 series console
- (1) Power cable with UL power supply cable with US 2 pin connector
- (1) Manual
- (1) Vinyl Dust Cover

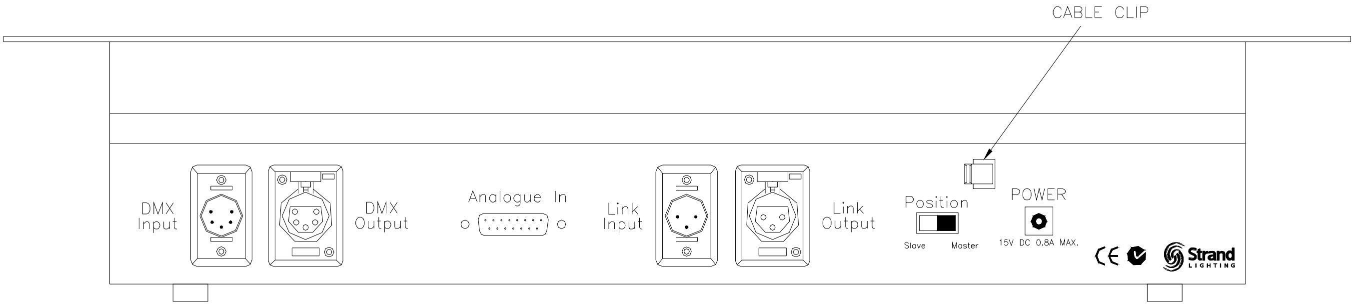
List of Parts for Europe and Asia…

- (1) 301 series console
- (1) Power cable with cUL power supply cable with
- (1) UK 2 pin connector and EU 3 pin connector
- (1) Manual
- (1) Vinyl Dust Cover

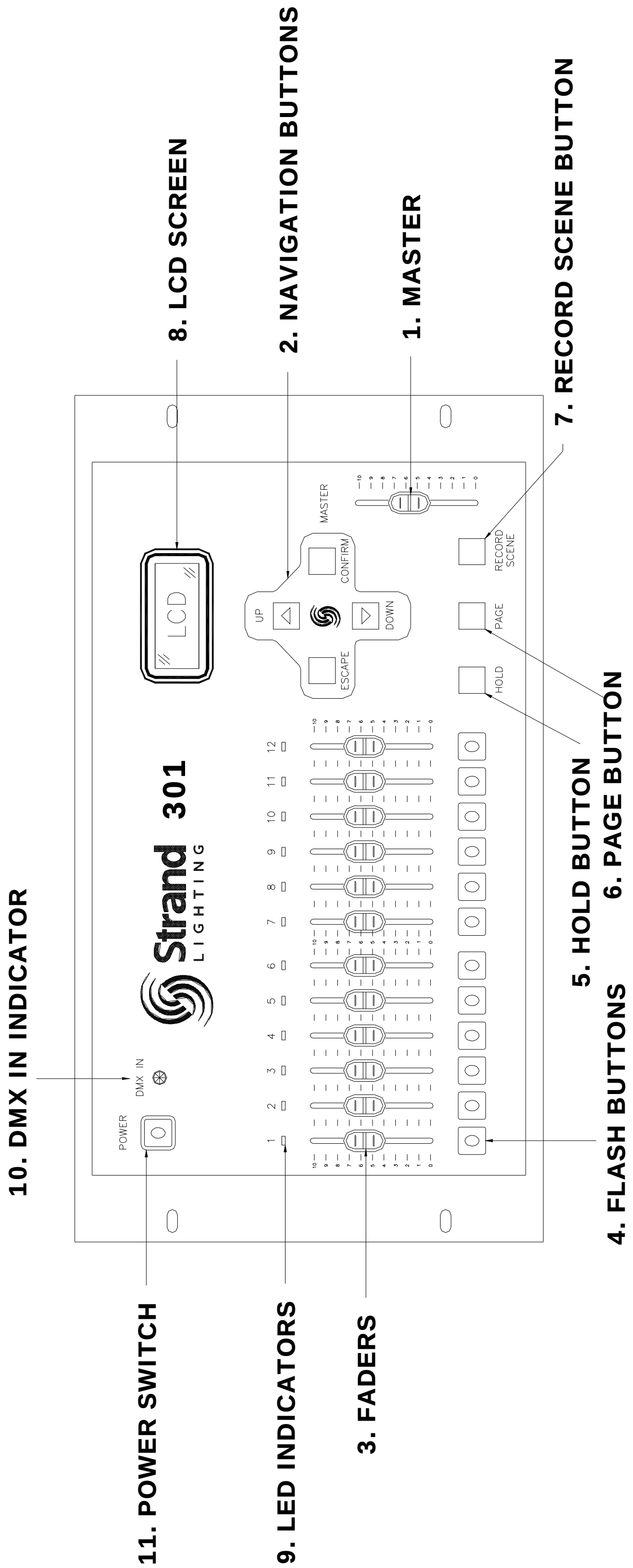
Face Plate



Back Plate



Layout


8. LCD SCREEN
2. NAVIGATION BUTTONS
1. MASTER
7. RECORD SCENE BUTTON
10. DMX IN INDICATOR
5. HOLD BUTTON
6. PAGE BUTTON
4. FLASH BUTTONS
11. POWER SWITCH
9. LED INDICATORS
3. FADERS
LCD
Strand
LIGHTING
301
POWER
DMX IN
MASTER
CONFIRM
ESCAPE
UP
DOWN
RECORD SCENE
PAGE
HOLD

Quick Guide

1. Master– an inhibitive fader that proportionately controls all other faders. This determines maximum output of all faders at all times. The master is always active.

2. Navigation Keys– these keys allow access to all setup and mode change functions.

> **Up** – the function of this key will be displayed at the bottom center of the LCD screen to the left of the slash (/). It often allows the cursor to move up any list on the LCD display.
>
> **Down** – the function of this key will be displayed at the bottom center of the LCD screen to the right of the slash (/). It often allows the cursor to move down any list on the LCD display.
>
> **Escape** – the function of this key will be displayed at the bottom left of the LCD screen. It often allows the console to cancel a command.
>
> **Confirm** - the function of this key will be displayed at the bottom right of the LCD screen. It often allows the console to accept a command.

3. Channel Faders – a fader that controls the output of the patched dimmer number.

4. Flash Buttons – these change functions according to the mode of the console.

> *In back up mode* – a momentary button that flashes the level of the corresponding scene to full.
>
> In timed event mode – to enter into event setting.
>
> *In manual mode* - a momentary button that flashes the level of the corresponding fader to full.

5. Hold Button– this button will freeze the output of the faders so that the operator can reset the channel faders for a different look.

6. Page– changes function according to the mode of the console.

> *In back up mode* – changes from page 1 through 12 for playback and recording of cues.
>
> *In timed event mode* – the page button is inactive.
>
> *In manual mode* – the page button is inactive.

7. Record Scene– changes function according to the mode of the console.

> *In back up mode* – allows the recording of back up cues from the main lighting console. 144 back up cues can be recorded. (12 pages of 12 cues each.)
>
> *In timed event mode* – allows the recording of timed events. 12 timed events can be recorded. Timed events can be played back in any order.
>
> *In manual mode* – the record scene button is inactive.

8. LCD Screen – displays current information about the console's mode and fader status.

9. LED Indicator Lights – display relative brightness when the fader below it is active.

10. DMX IN Indicator – the LED is illuminated when the console is in either back up or event player mode AND it is receiving DMX from the main console. The LED flashes when DMX is not being received.

11. Power Switch – turns on / off power to the console.

DMX Input – accepts a DMX512 5 pin XLR connector from the DMX512 output of the main console.

DMX Output – accepts a DMX512 5 pin XLR connector from the dimmers.

Analogue In – accepts an analogue input for 12 contact closures.

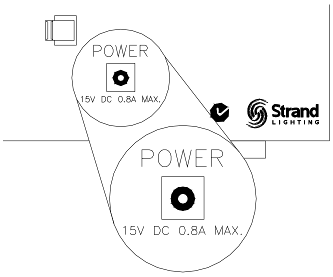
Link Input – as a master 301 console, accepts a DMX512 3 pin XLR connector from the Link Output of the slave 301 console.

Link Output – as a slave 301 console, accepts a DMX512 3 pin XLR connector from the Link Input of the master 301 console.

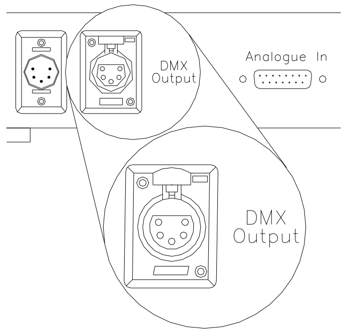
Console Position Switch – sets the console to either master or slave mode.

Power Connector – accepts the power adaptor from the power transformer.

Setup

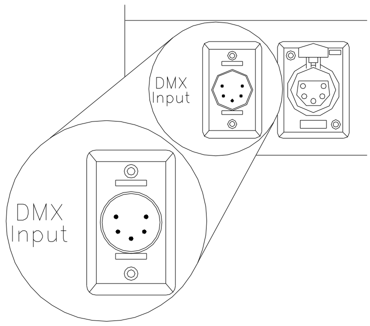


Plug the appropriate power adaptor into the console where shown. Plug the male end into the appropriate electrical service.



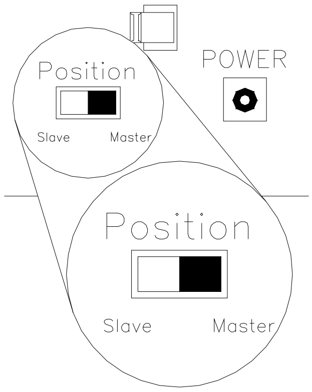
Plug the DMX512 cable from the dimmer rack into the DMX512 output of the 301 console.

This may already be attached to the DMX512 output of the lighting system's main lighting console. The DMX512 output to the lighting system needs to run to the 301 first. This will allow the 301 to send the back up cues to the dimmers should the main console fail.



Plug a DMX512 cable from the main lighting console's first DMX output to the DMX512 input of the 301.

This DMX512 universe will be captured during back up recording of cues.



Make sure the *Master / Slave* switch is set to master.

If this is correct, once the console is on, no matter what mode the console is in, at the center of the bottom line on the LCD screen, it will say <Ms> for master. If in slave mode, it will show <sl> for slave.

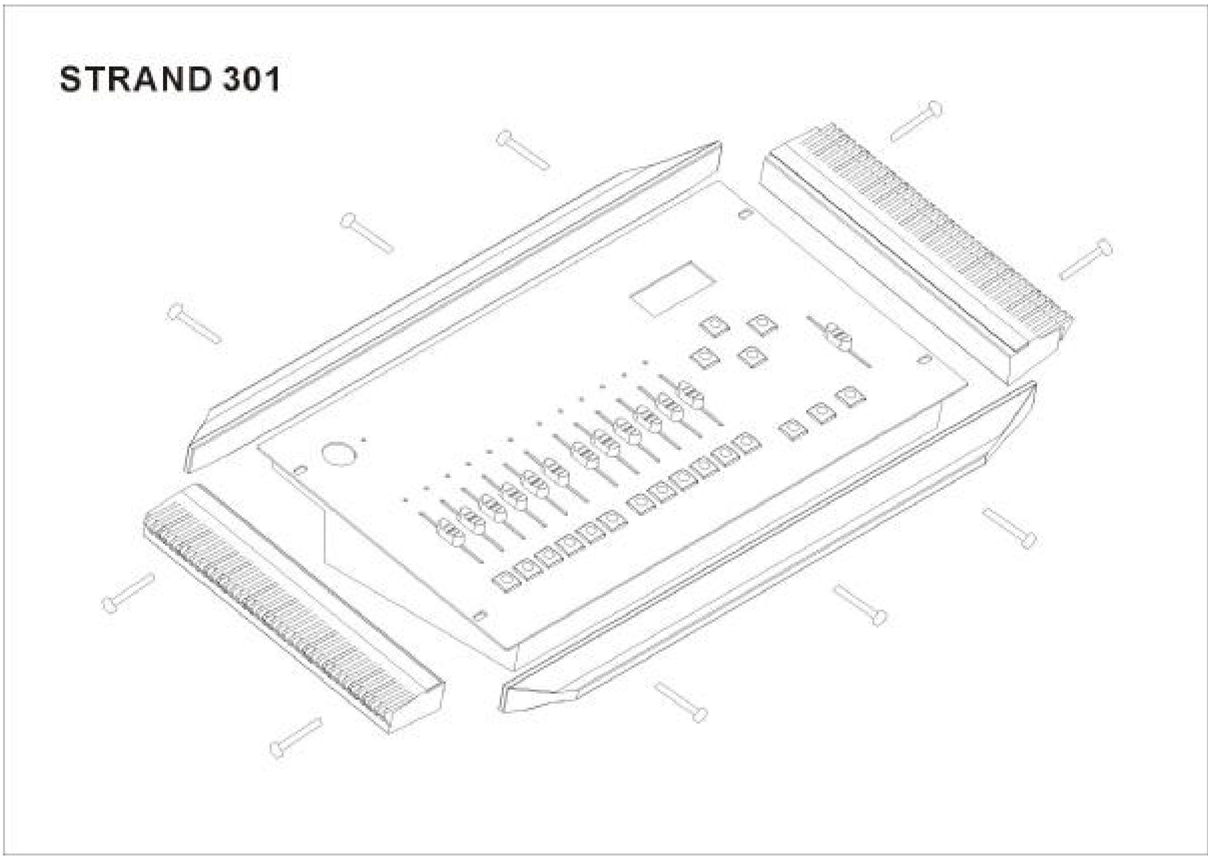
<Ms>	<sl>

Important Note: Before connecting the console up, please remove the protection sheet for the back-up battery, which is located at the bottom of the console.

For multiple unit setup, see *Multiple Units – Setup* section in this manual.

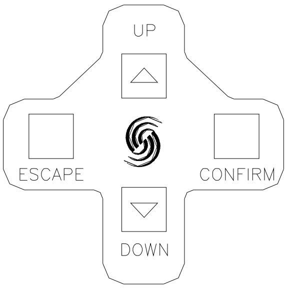
Rack Mounting

Below is a drawing that illustrates the removal of the edge pieces for rack mounting.



Operation

Basic Navigation



Basic navigation for the 301 is done with four buttons (represented to the left). The functions of the keys are labeled on the bottom line of the LCD screen. Escape on the left, Confirm on the right and Up / Down in the center separated by a slash (/). With the example below, Escape = Quit, Up/Down scroll through options 1, 2 and 3. Confirm = Confirm.

```
1. Back Up
2. Events Player
3. 12 Ch Control
Quit    +/-    Confirm
```

Changing Modes

```
1. Back Up
2. Events Player
3. 12 Ch Control
Quit    +/-    Confirm
```

To change modes, hold down BOTH the up and down keys simultaneously for 3 seconds. A list will appear on the LCD screen.

Navigate with the up and down keys to pick the appropriate mode. Notice the flashing cursor on the current selection. When the cursor is on the appropriate mode, press *Confirm* to accept.

Back up Mode

Capacity

The 301 can record up to 144 cues for a full universe of DMX. 12 pages at 12 cues per page. (A universe is defined as 512 DMX outputs)

More that one universe can be captured but that requires multiple units. (See the *Multiple Unit* section for more information.)

Changing Modes

1. Back Up 2. Events Player 3. 12 Ch Control Quit +/- Confirm

To change modes, hold down BOTH the up and down keys simultaneously for 3 seconds. A list will appear on the LCD screen.

Navigate with the *up* and *down* buttons to pick the appropriate mode. Notice the flashing cursor on the current selection. When the cursor is on the appropriate mode, press *Confirm* to accept.

The first time the console is powered up, it defaults to back up mode.

> Note: if there are channels that are active and the 301 is changed from back up mode to 12 channel control mode, the console can only control channels 1 – 12 according to its patch. All other outputs will be ignored.

Screen Menus for Back up

Main Screen -

12:00:00 Page:01 C-Page:XX Ch:01 Level:00 XFtm <Ms> Menu

This is the back up mode's main screen menu.
Information on this screen is as follows…

Time – console's internal time clock.
Page – shows the active page for back up cues.
C-Page – (Current Page) this shows the console's current back up page. (XX indicates there is no content on last actioned fader.)
Ch – this indicates the channel that had the last action.
Level – this indicates the last action channel's level.
XFtm – Timed Cross Fade. This allows the operator to change the default cross fade time using the +/- keys.
<Ms> - this lets the operator know that the console is in master mode rather than slave mode. With a single 301, this should always be *Ms*.
Menu – allows the operator to adjust setup options and delete items specific to the current mode.

> *Note: If the console displays <Ms-f> this means there are more than one console in the back up chain have been set to master mode. Check the master/slave switch and make sure only one console is set as master and the rest as slave.*

Menu -

Menu – this allows access to the back up menu that deletes scenes, sets the buzzer and clock.

```
1. Delete Scene
2. Set Buzzer
3. Set Clock
Quit  +/-  Confirm
```

Delete Scene – gives the operator the delete scene options.
Set Buzzer - allows the operator to either *Enable* or *Disable* the buzzer.
Set Clock – allows the operator to set the internal clock.

- Delete Scene

Delete One Scene

Delete One Scene – deletes a single scene on a single page.

```
1. Del One Scene
2. Del Page Scene
3. Del All Scene
Quit  +/-  Confirm
```

→

```
Del One Scene
Page: XX
Scene: XX
Quit  +/-  Confirm
```

Navigate using the up and down keys to select the page and then press one of the flash button to select scene to delete. Then press *Confirm*.

(The XX represents the item number)

Delete Page Scene

Delete Page Scene – deletes all scenes on a single page.

```
1. Del One Scene
2. Del Page Scene
3. Del All Scene
Quit  +/-  Confirm
```

→

```
Del Page Scene
Page: XX

Quit  +/-  Confirm
```

Navigate using the up and down keys to select the page to delete. Then press *Confirm*.

Note: When an entire page of scenes are deleted, the console automatically advances to the next page number for quick deletion of the next page. Also, when the console is back in playback mode, the console has advanced to these pages live.

Delete All Scenes

Delete All Scenes – deletes all scenes on all pages.

```
1. Del One Scene
2. Del Page Scene
3. Del All Scene
Quit  +/-  Confirm
```

→

```
Delete  All  Scene
Are    You    Sure?

Quit        Confirm
```

Press *Confirm* to complete the deletion.

- Set Buzzer

Set Buzzer – The buzzer indicates if the back up has lost the DMX512 signal. The options are *Enable* and *Disable*. There is no other indication of the buzzer's status.

```
1. Delete Scene
2. Set Buzzer
3. Set Clock
Quit  +/-  Confirm
```

→

```
     Buzzer Set
1. Enable Buzzer
2. Disable Buzzer
Quit  +/-  Confirm
```

Navigate using the up and down keys to select the buzzer option. Then press *Confirm.*

Note: When DMX is lost, the buzzer will sound (if enable) and the DMX IN LED will flash until DMX is restored to the main lighting console. The buzzer will also turn off automatically if any action is taken on the console subsequent to DMX loss.

- Set Clock

Set Clock – this allows the operator to set the internal clock of the console. The time is displayed in 24 hour mode. The console will automatically go back to the main screen after 5 seconds of inactivity.

```
1. Delete Scene
2. Set Buzzer
3. Set Clock
Quit  +/-  Confirm
```

→

```
Set Clock
TIME:12:00:00

>     +/-     Confirm
```

Navigate using the left key. Set the time using the up and down keys. Then press *Confirm.*

Cross Fade Time –

```
12:00:00  Page:01
C-Page:XX  Ch:01
Level:00
XFtm  <Ms>  Menu
```

Cross fade time – represented by (XFtm) allows you to set the default cross fade time. Time can be any value from 0 – 99 seconds.

(The navigation keys do wrap from 0 to 99).

```
CrossFade Time
05 Sec

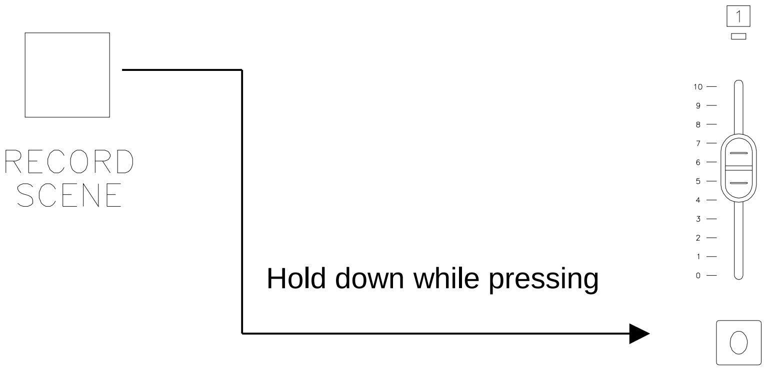
+/-  Confirm
```

Navigate using the up and down keys to select the default time. Then press Confirm.

Recording of Back Up Scenes

Once the consoles are setup properly to record a back up cue as page 1 scene 1, just advance to the cue on the main lighting console, hold down the *Record Scene* button and press the *Flash* button that corresponds with fader 1.

This will capture the current cue from the main lighting console.



All LEDs will flash momentarily. When recorded, the LED above the selected fader will light up.

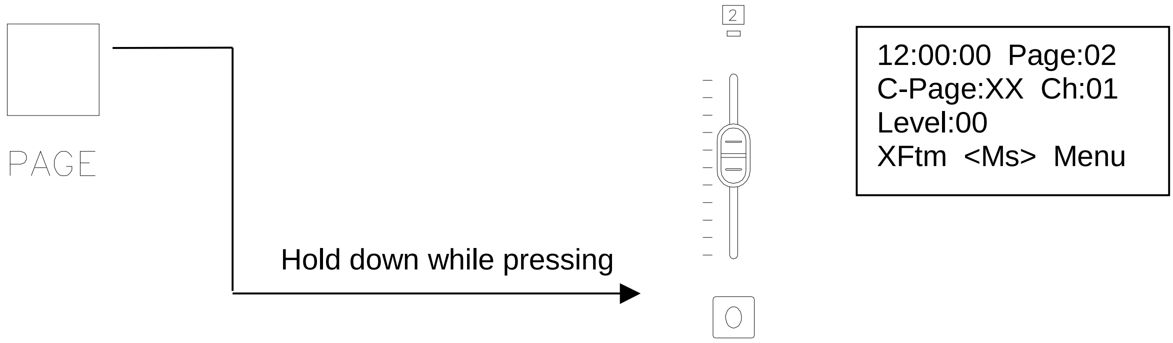
The process can be repeated until all 12 faders have a cue stored in each one. For more than 12 cues, change to a different page.

Record Lock

To prevent accidental recording, the record Button can be locked by pressing the holding the Record button for approximately 5 seconds. A lock symbol will be shown on the LCD display indicating that recording is prohibited. To unlock, Press and hold the record button for 5 seconds.

Change Pages -

To change pages, hold down the *Page* button and press the *Flash* button that corresponds with the page that is required. For example, to change to page 2…

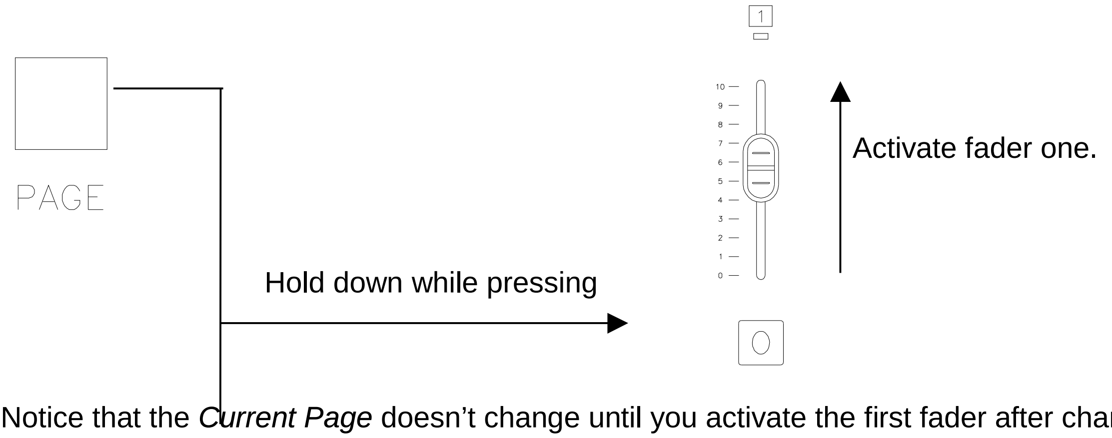


This will change the console to page 2. The LCD screen will list the page in the upper right hand corner.   Notice the LEDs that were illuminated over the faders that have been recorded have gone out. This indicates that there are no recorded scenes on page 2.

Note: If no faders have been activated yet, the C-Page *will still show the last active page. The C-page will display XX if the last actioned fader is empty.*

Playback of Back Up Scenes

To play the back up cues, just change to the appropriate page and give a level to the appropriate fader. For example, change to page one and activate fader one.



Notice that the *Current Page* doesn't change until you activate the first fader after changing pages. This keeps any active faders on the previous page from deactivating while they have a level. Read more about *Non-Current Page Active Faders* in the *Operation* section below.

Recording scenes as back up cues from the main lighting console on the 301 is quick and simple. But there are a few things to know when dealing with multiple pages.

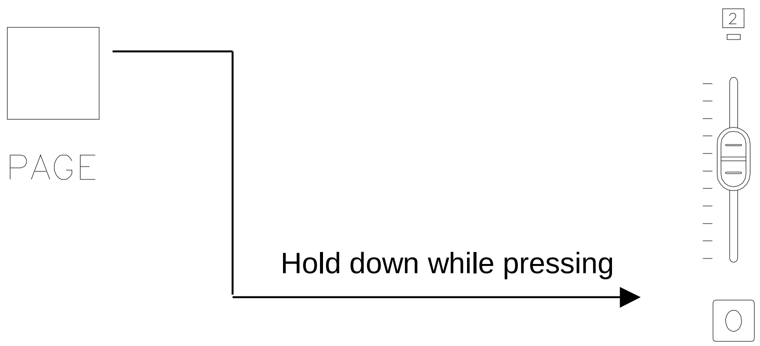
- Back Up Cues on Multiple Pages

It’s very common to need to crossfade from a back up cue on one page to a back up cue on another page. The example below will show how to go from page 1 fader 12 to page 2 fader 1.

First, make sure that there are back up cues recorded on page 1 fader 12 and page 2 fader 1. Then change to page 1 and take fader 12 to full.

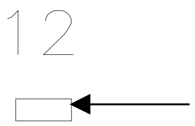
If necessary, see *Record Mode* and *Change Pages* above.

With page 1 fader 12 live on stage, change to page 2.



12:00:00 Page:02
C-Page:01 Ch:12
Level:FL
XFtm <Ms> Menu

The console is now on page 2 while the current page is page 1 because page 1 still has an active fader. The active fader is listed as *Ch:12* on the LCD screen with the level at full.



Notice that the LED above fader 12 is flashing indicating that it is still active. This is a *Non-Current Page Active Fader.*

12:00:00 Page:02
C-Page:XX Ch:12
Level:00
XFtm <Ms> Menu

The *Current Page* will display XX until a fader is moved on the new page 2.

Once fader 1 is active, the fader will be listed as *Ch:01* and the intensity as *Level:FL*.

12:00:00 Page:02
C-Page:02 Ch:01
Level:FL
XFtm <Ms> Menu

12:00:00 Page:02
C-Page:01 Ch:12
Level:50
XFtm <Ms> Menu

As soon as fader 12 (the one that has a flashing LED) is activated, the page is was from, channel and level will appear on the LCD screen. When the fader goes to zero, the LED light will go out, indicating that this scene is no longer being held on this fader from the previous page (page 1).

Note: When the same faders are used on multiple pages and a scene is active from a previous fader, that fader will not release the active scene until the fader is taken to zero. Then it will automatically reload the scene from the current page. This will be indicated by C*-Page info on the LCD screen and the LED above the fader changing from flashing to being constantly on.*

Flash

Any scene that is recorded can be flashed momentarily by pressing and releasing the flash button below the appropriate fader.

Timed Events Mode

Capacity

There are 12 timed events that can be recorded. The events are triggered using the internal system clock. Timed events may be played back in any order.

Changing Modes

```
1. Back Up
2. Events Player
3. 12 Ch Control
Quit    +/-    Confirm
```

To change to timed event mode, hold down BOTH the up and down keys simultaneously for 3 seconds. A list will appear on the LCD screen.

Navigate with the up and down keys to pick the *Events Player*. Notice the flashing cursor on the current selection. When the cursor is on the appropriate mode, press *Confirm* to accept.

Screen Menus for Events Player

Main Screen -

```
12:00:00
Event Stop
CH:01        LL:00
Start  <Ms>  Menu
```

This is the event player mode's main screen menu.
Information on this screen is as follows…

Time – console's internal clock. (Can be set in the *Menu*.)
Event Stop – this indicates that no event is currently running.
Ch – this indicates the channel that had the last action.
LL – this indicates the last action channel's level.
Start - this button will allow the console to start the next scheduled event.
<Ms> - this lets the operator know that the console is in master mode rather than slave mode. With a single 301, this should always be *Ms*.
Menu – allows the operator to adjust setup options and delete items specific to the current mode.

Menu -

Menu – this allows access to the event player menu that deletes events, sets default fade time and sets buzzer and clock.

```
1. Delete Event
2. Set Default Ft
3. Set Buzzer
Quit  +/-  Confirm
```

Delete Event – gives the operator the delete event options.
Set Default Fade Time – allows the operator to set the default fade time. (The maximum is 59:59)
Set Buzzer - allows the operator to either *Enable* or *Disable* the buzzer.

There is a fourth item that is not initially visible. Use the up / down keys to access it.

```
4. Set Clock

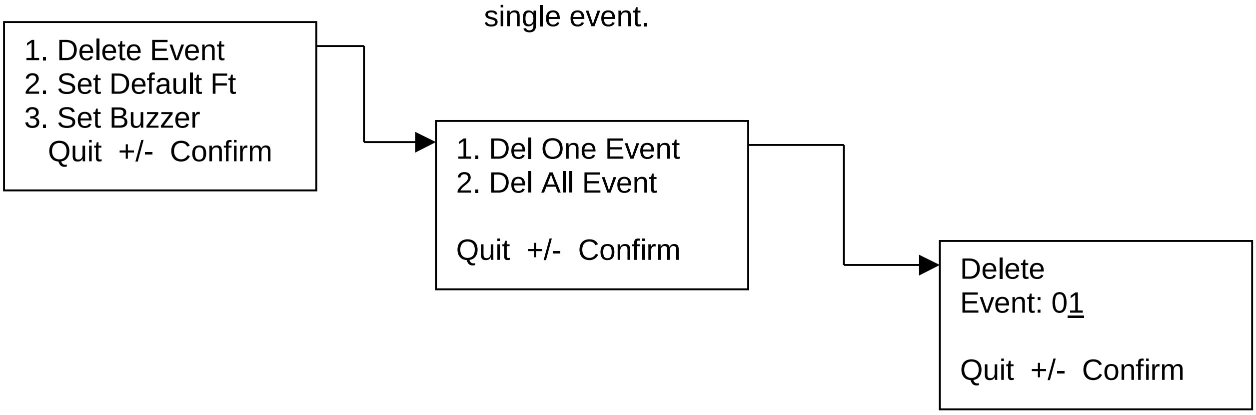

Quit  +/-  Confirm
```

Set Clock – allows the operator to set the internal clock.

- Delete Event

Delete One Event

Delete One Event – this allows the operator to delete a single event.



Navigate using the up and down keys to select the event to delete. Then press *Confirm*.

Delete All Events

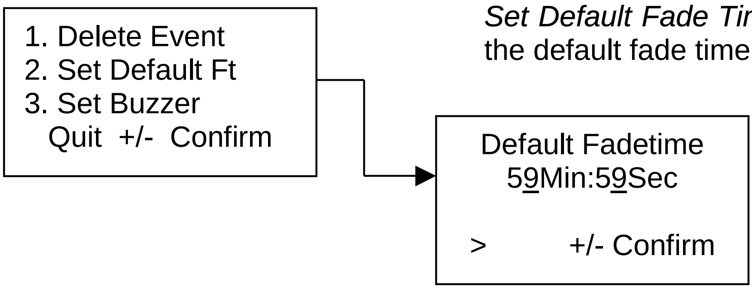
Delete All Event – this allows the operator to delete all recorded events.



Press *Quit* to not delete all events or press *Confirm* to delete all events.

- Set Default Fade Time

Set Default Fade Time – this allows the operator to set the default fade time for all events.



The arrow (*Escape* key) changes your cursor from minutes to seconds. The *Up* and *Down* keys change the time. Press *Confirm* to accept.

- Set Buzzer

Set Buzzer – The buzzer indicates if the console has lost the DMX signal. The options are *Enable* and *Disable*. There is no other indication of the buzzer's status.

```
1. Delete Scene
2. Set Buzzer
3. Set Clock
Quit  +/-  Confirm
```

```
Buzzer Set
1. Enable Buzzer
2. Disable Buzzer
Quit  +/-  Confirm
```

Navigate using the up and down keys to select the buzzer option. Then press *Confirm.*

Note: When DMX is lost, the buzzer will sound and the DMX IN LED will flash until DMX is restored.

- Set Clock

Set Clock – this allows the operator to set the internal clock of the console. The time is displayed in 24 hour mode. The console will automatically go back to the main screen after 5 seconds of inactivity.

```
4. Set Clock

Quit  +/-  Confirm
```

```
Set Clock
TIME:12:00:00

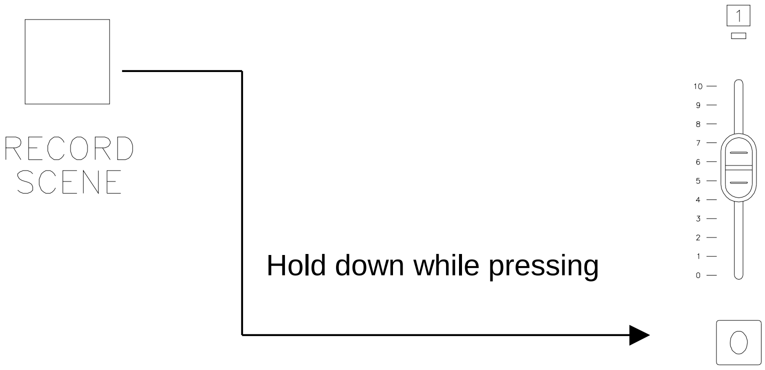
>    +/-    Confirm
```

Navigate using the left key. Set the time using the up and down keys. Then press *Confirm.*

Recording of Timed Events

Once the consoles are setup properly to record a timed event on fader 1, just advance to the cue on the main lighting console, hold down the *Record Scene* button and press the *Flash* button that corresponds with fader 1.

This will capture the current cue from the main lighting console.



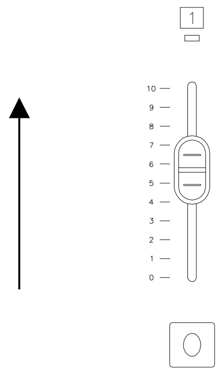
All LEDs will flash momentarily. When recorded, the LED above the appropriate fader will light up.

The process can be repeated until all 12 faders have a cue stored on each one.

Manual Playback of Timed Events

Timed events can be played back as if they were cues.

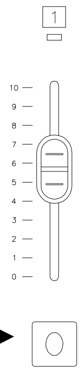
Just activate the appropriate fader…



Note that the channel and level of the timed even is shown in the LCD window as CH: 01 LL:Intensity

Scheduling Playback of Timed Events

After an event has been recorded, it can be scheduled to happen at a specific time. To schedule event 1, press the flash button for fader 1.




```
12:00:00        ET:01
On: _ _:_ _
Off: _ _:_ _
>        +/-    Confirm
```

Press the flash button of the fader

Use the *Escape* key to toggle between hour and minute of both the on and off times. Then use the up / down keys to set the scheduled time of both the on and the off. Press *Confirm* to continue.

The *ET:01* in the corner indicates which event is being scheduled.

Note that the clock is in 24 hour format and the up and down keys wrap the hour and minute digits.

An event that has not been recorded cannot be scheduled.

The scheduling window will close automatically after 5 seconds of inactivity.

Set Fade Time
1.Fade In:00:05
2. Default (00:05)
>   +/-   Confirm

Use the *Escape* key to advance the cursor and set the fade time. The default fade time is listed below.

See *Set Default Fade Time* to change the default.

Repeat the above procedure for all events that have been recorded.

Starting the Timed Events

Once the timed events have been scheduled, the event list must be started for the scheduled events to occur.

12:00:00
Event Stop
CH:01   LL:00
Start <Ms> Menu

To start the event list, just press the *Escape* key.

Now that the event list has been activated, the LCD screen will display the event that is chronologically next as well as the time it will start. You can press the *Escape* key to stop it.

12:00:00
Event:01 Ready
On At: 08:00
Stop <Ms>

Note that when the event list is started, the LED indicators go out. This indicates that the faders are no longer active. If the event list is started while a fader is active, the levels are frozen and the fader is no longer active. Stop the event list and the output will use the default fade time to change to the current faders levels. After that, any movement of faders will occur without using the default time.

12:00:00
Event:01 On
Off At: 17:00
Stop <Ms>

Once the event has started, the LCD displays all the information concerning when the event will stop.

While the event is fading, the fade countdown will be displayed on the bottom line of the LCD screen.

12:00:00
Event:01 On
Off At: 17:00
Stop <00:09>

If the operator wishes to interrupt the event’s schedule, just press *Escape* to stop it and the event will fade out in the default time.

Note that when event list is started, it is not possible to change mode. This is to avoid event being played out accidentally while the console is being used live. Stop the event if want to switch to back-up or channel mode.

12 Channel Control Mode

Capacity

The 301 console can control 12 channels in a single scene as a manual preset desk with a full DMX universe (512 DMX addresses) patch. The hold feature will allow two scene mode.

Changing Modes

```
1. Back Up
2. Events Player
3. 12 Ch Control
Quit    +/-    Confirm
```

To change to manual preset mode, hold down BOTH the up and down keys simultaneously for 3 seconds.   A list will appear on the LCD screen.

Navigate with the up and down keys to pick *12 Channel Control*. Notice the flashing cursor on the current selection. When the cursor is on the appropriate mode, press *Confirm* to accept.

Screen Menus for 12 Channel Control

Main Screen -

This is the 12 channel control mode's main screen menu.
Information on this screen is as follows…

```
00   00   00   00
00   00   00   00
00   00   00   00
XFtm  <Ms>  Patch
```

00 – channel level. Each pair of digits relates to the intensity of every channel 1 – 12 at a value of 0 – FL.
XFtm – (cross fade time – only works with *Hold*) this is the rate at which the console can take the levels of the held cue to zero while taking the levels of the newly set faders to full. This allows setting of the default crossfade time for crossfading between scenes using the Hold function.
<*Ms*> - this lets the operator know that the console is in master mode rather than slave mode. With a single 301, this should always be *Ms*.
Patch – this allows for patching any DMX address 1 – 512 to any channel 1 – 12.

- Cross Fade Time (XFtm)

```
00   00   00   00
00   00   00   00
00   00   00   00
XFtm  <Ms>  Patch
```

Crossfade time – the default crossfade time can be changed here. The setting can be anything from 0 – 99 seconds.

```
CrossFade   Time
    05 Sec

     +/-    Confirm
```

Set the time using the up and down keys. Then press *Confirm.*

- Patch

```
00   00   00   00
00   00   00   00
00   00   00   00
XFtm  <Ms>  Patch
```

Patch – this allows the operator to view and change the assignment of dimmers to control channels of the console.

Edit Patch

Edit Patch – allows the operator to edit the patch. Navigate the up / down keys to select *Edit Patch*. Then press *Confirm.*

```
1. Edit Patch
2. Display Patch
3. Default Patch
 Quit     +/-   Confirm
```

```
      Edit Patch
Bump Button=CH
Dmx:027 to Ch:02
 Quit     +/-   Unpatch
```

Press the up / down keys to select the dimmer who's channel assignment wants to be edited. Then press the bump button under the channel to assign the dimmer number to that channel.

The edit patch screen above shows dimmer 27 assigned to channel 2. As the up / down keys move through the dimmer list numerically, it will show the current channel assignment for all dimmers. Any dimmer that shows an assignment of Ch:XX, means that dimmer has no channel assignment and therefore will not be controlled by the console until an assignment is made in patch.

To display all unpatched dimmers, go to *Display Patch* and view channel 0. See the *Display Patch* section in this manual for instructions.

Since this is a soft patch (which means it is an electronic patch), any number of 512 dimmers can be controlled by any channel.

Display Patch

```
00   00   00   00
00   00   00   00
00   00   00   00
XFtm  <Ms>  Patch
```

Display Patch – allows the operator to view the patch by channel. Navigate the up / down keys to select *Display Patch*. Then press *Confirm.*

```
1. Edit Patch
2. Display Patch
3. Default Patch
 Quit    +/-   Confirm
```

```
 Display Patch
 Select Ch:01

Quit    +/-   Confirm
```

```
 CH 01= 001


Quit
```

.

This screen displays that channel 1 has control of dimmer 1.

```
 Display Patch
 Select Ch:02

Quit    +/-   Confirm
```

Press *Quit* and the console goes back to the previous screen, but notice that the channel has advanced to the next channel. Press *Confirm* to see the next channel's assignment.

Default Patch

```
00   00   00   00
00   00   00   00
00   00   00   00
XFtm  <Ms>  Patch
```

Default Patch – this allows the operator to take the console back to a patch of 1 to 1. For all 12 channels, the dimmer assignment will equal the channel number. Dimmers 13 – 512 will have no patch assignment.

To default the patch. Navigate the up / down keys to select *Default Patch*. Then press *Confirm.*

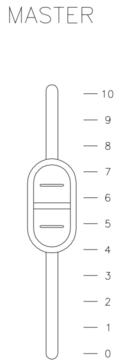
```
1. Edit Patch
2. Display Patch
3. Default Patch
 Quit    +/-   Confirm
```

```
 Turn On Default
     Patch?

Quit          Confirm
```

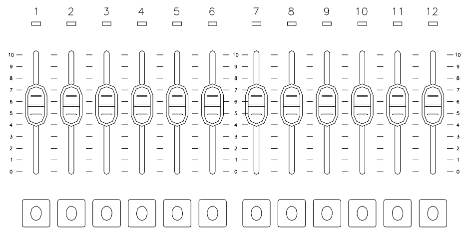
To continue with the default patch command, press *Confirm.*

One Scene Mode



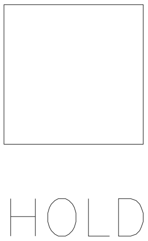
Make sure the *Master* is at full or the appropriate level.

Then set the faders 1 – 12 to the appropriate levels
to create the cue that is desired.



Hold – Two Scene Mode

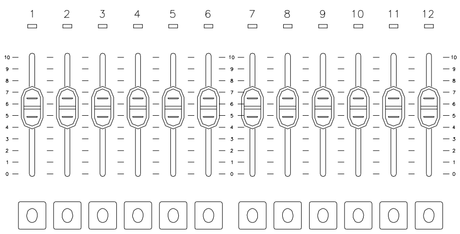
The hold function allows the operator to “hold” or capture all levels on all active faders so that all active faders can be reset to different levels to create a different cue.



To activate the hold feature press the *Hold* button.

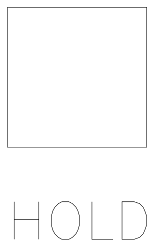
The LCD screen now indicates that the hold function has been activated by the flashing <Hold> on the bottom line of text.

00	00	00	00
00	00	00	00
00	00	00	00
XFtm	<Hold>	Patch	



Now all active faders have been captured. Reset all fader levels to the next cue.

Simply press the *Hold* button again and the new cue will crossfade in while the old cue crossfades out.



See the LCD screen for countdown of crossfade using the default time.

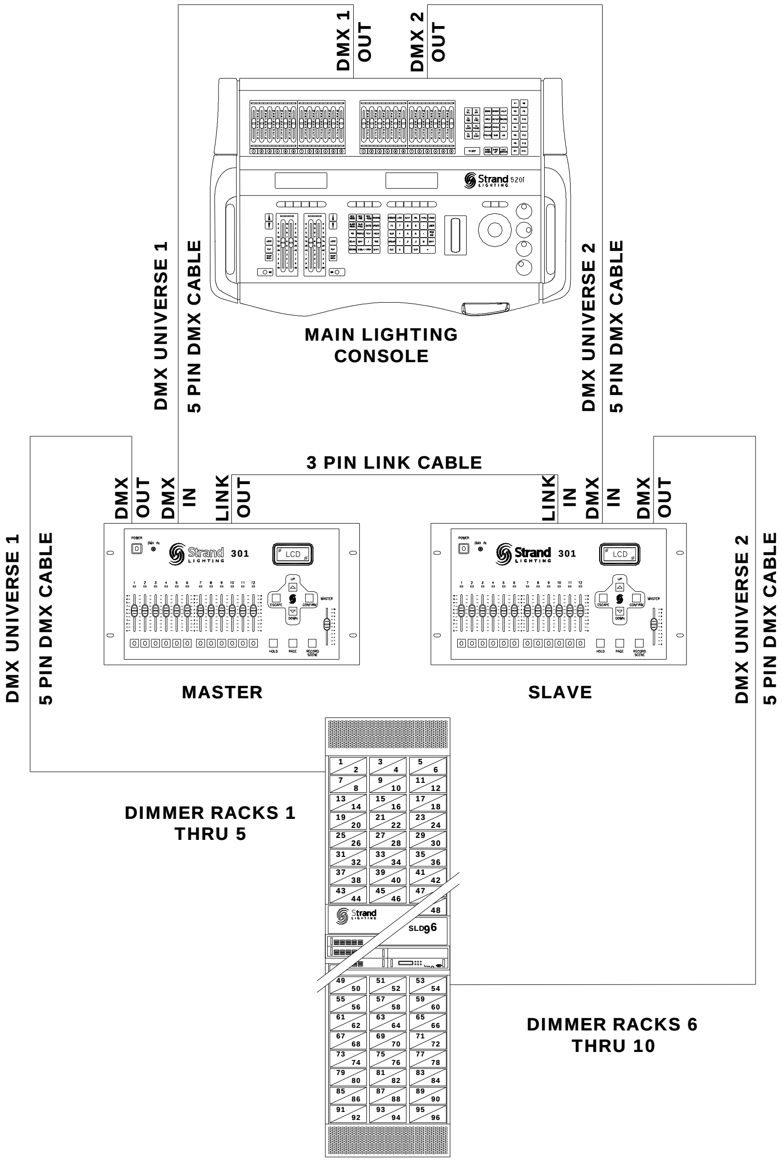
Multiple Units

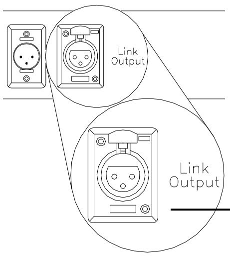
Capacity

Each 301 console can capture one universe of DMX. There is maximum of 32 301 units that can be connected.

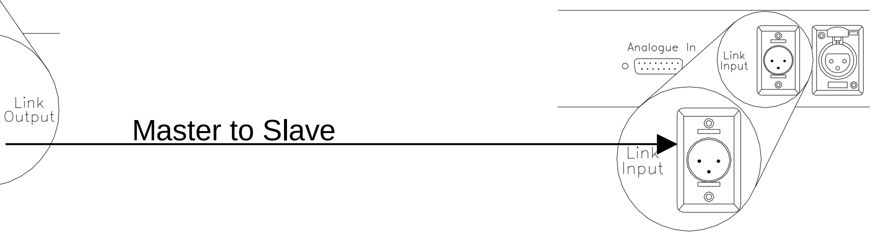
Setup

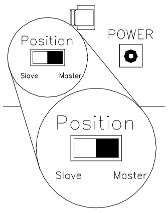
For a two unit system, Strand recommends that master controls the first universe of DMX and that the slave controls the second universe of DMX. The diagram below shows the recommended connection of equipment.





Connect a 3 pin cable to the link input of the master 301 console and connect it to the link output of the slave 301 console.





Set the *Master / Slave* switch appropriately on the back panel of each console.

Note: The LCD screen will always relay the current mode of the console.

If the console ever displays <Ms-f> (*Master Fail)* then there are two 301 consoles set to master. Make sure only the first 301's master / slave switch is set to master.

<Ms-f>

Operation

All operational procedures are the same in systems with multiple units adjusting for the fact that each 301 console only controls one DMX universe each.

Analogue Input Operation

The analogue input on the back panel of the console is for remote fader control. Users can connect a remote slider panel or 12 channel analogue console to the 301 for remote access to the console's 12 faders on page number 12 of backup mode. This input piles on in backup mode with the highest level taking precedence.

Please note that the maximum current output from the analogue connector power pin is 200mA.

Conclusion

This concludes the instructional manual for Strand’s 301 series console.

Accessories

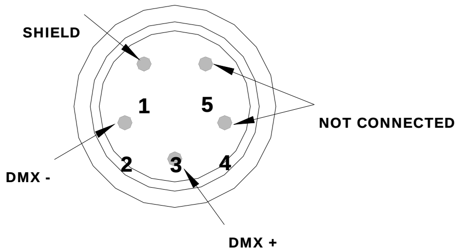
A replacement vinyl cover is available for the console. Contact your local dealer for price and availability.

Appendix A

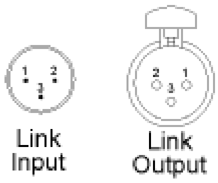
Control Input

The DMX512 input will accept a multiplexed digital control signal which conforms to USITT specification DMX512 (1990). Details of this specification are available from USITT on request.

The control input is via a five-pin male XLR type connector. Pin connections are shown in Figure 9. A five-pin female XLR connector is also fitted to allow a series of SD 6 packs (or other DMX equipment) to be connected together in ‘daisy chain’ fashion.

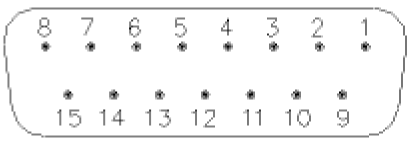


Link Input



Pin	1	2	3
	Shielded	Signal A	Signal B

Analogue In



Pin	1-12	13	14,15
	Analogue In	+10v	GND

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W